REMARKS

Upon entry of this amendment, claims 1, 3-6, 8 and 17-20 will be pending in the application. Claims 17-20 have been added. Claims 1, 3, 6 and 8 have been amended. Claims 2 and 7 have been canceled. No new matter has been added. Applicant respectfully requests reconsideration and allowance of the present application based on the following remarks.

Objections

In the May 18, 2009 Office Action, the Examiner objected to the drawings under 37 C.F.R. 1.83(a) for failing to show every feature of the invention specified in the claims. Applicant has amended the claims to delete the features not shown in the drawings. Applicant believes that every feature of the claims is shown in the drawings. Accordingly, Applicant respectfully requests that the Examiner withdraw the objection.

Claim Rejections under 35 USC § 103

Claims 1-8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,370,208 to Kuo ("Kuo") in view of U.S. Patent No. 6,285,655 to Lundby et al. ("Lundby") and further in view of U.S. Patent No. 6,650,879 to Underbrink ("Underbrink"). For reasons set forth more fully below, these rejections are respectfully traversed.

Independent claim 1 recites:

1. A method for reducing a number of calculations required to correlate an incoming spread spectrum signal received by a GPS receiver and encoded with a pseudorandom code, comprising:

determining, for the spread spectrum signal, partial accumulations that are repeated in a correlation process of the spread spectrum signal using a data slice of the spread spectrum *signal made up of in phase (I) signal data and quadrature phase (Q) signal data correlated with pseudorandom codes, wherein the data slice of the spread spectrum signal includes a plurality of data bytes and a plurality of pseudorandom code bytes;*

removing at least a portion of the partial accumulations that are repeated in the correlation process of the I signal and the Q signal data with the pseudorandom codes and results in remaining partial accumulations in the correlation process;

storing the remaining partial accumulations in at least one table; and

using the data slice and the at least one table during the correlation process to determine when a locally generated pseudorandom code and the incoming pseudorandom

code received at the GPS receiver are correlated *where the at least one table is constructed for one of the terms of the spread spectrum signal.*

The cited references do not disclose, teach, or suggest the method recited in independent claim 1. In particular, unlike the method specified in independent claim 1, Kuo, Lundby and Underbrink fail to disclose or suggest "***determining, for the spread spectrum signal, partial accumulations that are repeated in a correlation process of the spread spectrum signal using a data slice of the spread spectrum*** *signal made up of in phase (I) signal data and quadrature phase (Q) signal data correlated with pseudorandom codes, wherein the data slice of the spread spectrum signal includes a plurality of data bytes and* ***a*** *plurality of pseudorandom code bytes.*"

Kuo, Lundby and Underbrink also fail to disclose "***using the data slice and the at least one table during the correlation process to determine when a locally generated pseudorandom code and the incoming pseudorandom code received at the GPS receiver are correlated*** *where the at least one table is constructed for one of the terms of the spread spectrum signal.*"

The Kuo reference discloses a correlator for CDMA applications. Kuo discloses a method for reducing the complexity of correlators by first performing a partial sum of an input sequence values and then performing mathematical operations on those sums. (Kuo, 1: 10-13 and 4:52-56) Kuo discloses dividing the required summations for each correlator into common partial summation terms and deriving correlator outputs for multiple codes from these terms. Kuo (5:1-35) Kuo discloses first a counter n and register 2^M are initialized. M codes are grouped into an M bit number B_n. The Contents of the corresponding register are increased by the corresponding value of an input signal. The value of n is incremented and compared to the value of kL where L is the code length. If n does not equal kL the process repeats with the next code. If n does equal kL, the kth correlation result is calculated by adding the contents of the registers and performing sign adjustments. (Kuo, 4: 49-65)

Lundby is directed to a method and apparatus for providing orthogonal spot beams, sectors and picocells. Lundby discloses a demodulator including a correlator which receives digitized I and Q data. (Lundby, Abstract and 7:42-57)

Underbrink discloses a personal communications device including a GPS receiver. (Underbrink, 1:7-13 and 3:26-43)

However, none of the cited reference discloses "***determining, for the spread spectrum signal, partial accumulations that are repeated in a correlation process of the spread spectrum signal using a data slice of the spread spectrum*** *signal made up of in phase (I) signal data and quadrature phase (Q) signal data correlated with pseudorandom codes, wherein the data slice of the spread spectrum signal includes a plurality of data bytes and a plurality of pseudorandom code bytes,*" or "***using the data slice and the at least one table during the correlation process to determine when a locally generated pseudorandom code and the incoming pseudorandom code received at the GPS receiver are correlated*** *where the at least one table is constructed for one of the terms of the spread spectrum signal.*" Accordingly, for at least these reasons, independent claim 1 as amended distinguishes over the combination of Kuo, Lunby, and Underbrink.

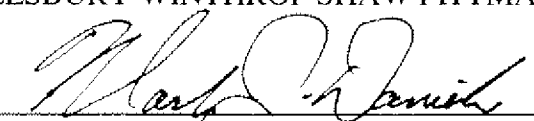
Claims 3-6, 8, and 17-19 depend from independent claim 1, as amended. Accordingly, Applicant respectfully submits that claims 3-6, 8 and 17-19 distinguish over the combination of Kuo, Lunby, and Underbrink for the same reasons set forth above with respect to independent claim 1.

For at least these reasons, all claims 1, 3-6, 8 and 17-19 patentably define over the cited prior art and the § 103 rejections thereof should be withdrawn.

Conclusion

All objections and rejections having been addressed, it is believed that the claims are in condition for allowance, and Notice to that effect is earnestly solicited. If any issues remain which the Examiner feels may be resolved through a telephone interview, s/he is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,
PILLSBURY WINTHROP SHAW PITTMAN LLP

Date: August 18, 2009  40,580

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